

Appl. No. 10/565,562  
Amdt. dated March 28, 2008  
Reply to Final Office action of Jan. 2, 2008

## **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

Claims 1-11. **(Cancelled)**

12. **(Currently amended)** A method for applying an electrical insulation to a ferromagnetic body of a primary element of an electrical machine, which ferromagnetic body is provided with axial slots for receiving an electrical winding, which axial slots form a Faraday cage whose field-free space can be coated only with difficulty, ~~of a primary element of an electrical machine,~~ in which the body is coated with electrostatically charged plastic powder, the method comprising applying a powder coating having a layer thickness of between about 1.0 and 2.0 mm by means of direct powder spraying onto the body while maintaining a potential difference between the body and the powder, and further characterized in that for the powder spraying, a coarse plastic powder is used, whose powder particles have a mean diameter greater than 150  $\mu\text{m}$  as a result of which sufficient particles can penetrate into the axial slots in order to create a layer, including within the axial slots, of between 1.0 and 2.0 mm.

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13. **(Previously presented)** The method as defined by claim 12, wherein the coating is done on the body while it has a lower potential than the plastic powder.

Claims 14-15. **(Canceled)**

16. **(Previously presented)** The method as defined by claim 12, wherein the powder spraying is performed with compressed air.

17. **(Previously presented)** The method as defined by claim 13, wherein the powder spraying is performed with compressed air.

18. **(Previously presented)** The method as defined by claim 12, wherein the powder spraying is performed in a closed spraying chamber with an electrostatic spray apparatus which is equipped with at least one spray location aimed at the body.

19. **(Previously presented)** The method as defined by claim 13, wherein the powder spraying is performed in a closed spraying chamber with an electrostatic spray apparatus which is equipped with at least one spray location aimed at the body.

20. **(Previously presented)** The method as defined by claim 16, wherein the powder spraying is performed in a closed spraying chamber with an electrostatic spray apparatus which is equipped with at least one spray location aimed at the body.
21. **(Previously presented)** The method as defined by claim 18, further comprising the steps of removing the plastic powder from a powder supply by means of suction, and delivering a metered quantity of powder to the spray apparatus by means of compressed air.
22. **(Previously presented)** The method as defined by claim 12, further comprising the step of subjecting the body to a cleaning process after the electrostatic powder spray-coating for removal of powder adhering to surfaces of the body where a coating of the powder is not wanted.
23. **(Previously presented)** The method as defined by claim 13, further comprising the step of subjecting the body to a cleaning process after the electrostatic powder spray-coating for removal of powder adhering to surfaces of the body where a coating of the powder is not wanted.
24. **(Previously presented)** The method as defined by claim 18, further comprising the step of subjecting the body to a cleaning process after the electrostatic powder spray-coating for removal of powder adhering to surfaces of the body where a coating of the powder is not wanted.

25. **(Previously presented)** The method as defined by claim 21, further comprising the step of subjecting the body to a cleaning process after the electrostatic powder spray-coating for removal of powder adhering to surfaces of the body where a coating of the powder is not wanted.

26. **(Previously presented)** The method as defined by claim 22, wherein the coated and cleaned body is subjected to a heating process that causes the firing of the powder coating.

27. **(Previously presented)** The method as defined by claim 26, further comprising the steps of cooling the body after the heating process.

28. **(Currently amended)** An apparatus for performing the method which includes applying an electrical insulation to a ferromagnetic body of a primary element of an electrical machine, which ferromagnetic body is provided with axial slots for receiving an electrical winding, which axial slots form a Faraday cage whose field-free space can be coated only with difficulty, ~~of a primary element of an electrical machine,~~ in which the body is coated with electrostatically charged plastic powder, the method comprising applying a powder coating having a layer thickness of between about 1.0 and 2.0 mm by means of direct powder spraying onto the body while maintaining a potential difference between the body and the powder, wherein the powder spraying is performed in a closed spraying chamber with an electrostatic spray apparatus which is equipped with at least one spray location aimed at the body and further

comprising the steps of removing the plastic powder from a powder supply by means of suction, and delivering a metered quantity of powder to the spray apparatus by means of compressed air, the apparatus comprising a spraying chamber, a conveyor belt penetrating the spraying chamber and carrying the body, a spray apparatus in the spray chamber with at least one spray location, a metering device upstream of the spray apparatus, a powder bin, and a pneumatic powder conveyor which aspirates powder from the powder bin and delivers it to the metering device

**wherein the powder particles have a mean diameter greater than 150 µm as a result of which sufficient particles can penetrate into the axial slots in order to create a layer, including within the axial slots, of between 1.0 and 2.0 mm.**

Claims 29-31. (Canceled)

32. (Previously presented) The apparatus as defined by claim 28, wherein said powder bin and spraying chamber are integrated into a common housing.

33. (Currently amended) A method for applying an electrical insulation to a ferromagnetic body of a primary element of an electrical machine, which ferromagnetic body is provided with axial slots for receiving an electrical winding, which axial slots form a Faraday cage whose field-free space can be coated only with difficulty, ~~— of a primary element of an electrical machine,—~~ in which the body, including within the axial slots, is coated with

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electrostatically charged plastic powder, the method comprising applying a powder coating having a layer thickness of between about 1.0 and 2.0 mm within the axial slots by means of direct powder spraying onto the body, including within the axial slots, while maintaining a potential difference between the body and the powder, and further characterized in that for the powder spraying, a coarse plastic powder is used, whose powder particles have a mean diameter greater than 150  $\mu\text{m}$  so that sufficient particles can penetrate into the axial slots in order to create a layer, including within the axial slots, of between 1.0 and 2.0 mm.